

VZCZCXRO7273
RR RUEHBZ RUEH DU RUEHJO RUEHMR RUEHRN
DE RUEHSA #5043/01 3520424
ZNR UUUUU ZZH
R 180424Z DEC 06
FM AMEMBASSY PRETORIA
TO RUEHC/SECSTATE WASHDC 7331
INFO RUCNSAD/SOUTHERN AFRICAN DEVELOPMENT COMMUNITY
RUEHOS/AMCONSUL LAGOS 1047
RUEHAR/AMEMBASSY ACCRA 0906
RUEHLG/AMEMBASSY LILONGWE 2072

UNCLAS SECTION 01 OF 04 PRETORIA 005043

SIPDIS

DEPT FOR OES/PCI; AF/S

SIPDIS

E.O. 12958: N/A

TAGS: [ENRG](#) [EAGR](#) [SENV](#) [ECON](#) [EINV](#) [SF](#)

SUBJECT: AFRICAN BIOFUEL INDUSTRY SHOWS MIXED RESULTS ACROSS THE CONTINENT

¶1. SUMMARY. An inaugural Biofuels Markets Africa conference took place in Cape Town on November 30 - December 1, 2006. Several case studies on Africa biofuels industries highlighted the status of the industry on the continent. Individual countries have created biofuel industries, but the lack of any regional agreements or frameworks hampers development of the industry. END SUMMARY

CAN AFRICA SUSTAIN A BIOFUEL INDUSTRY?

¶2. Suid Afrikaanse Steenkool en Olie - South African Coal and Oil (SASOL) Managing Director for Alternative Energy Brian Tait noted that Africa has many favorable characteristics needed for a successful biofuel industry. These include large tracts of land, excellent climate, cheap energy, basic farm skills, and better soil than that found in Europe for fuel crops. He remarked that biofuel plants could easily be located in several countries.

¶3. Tait offered an overview of several countries. Angola is a huge country with a five and a half-million-member labor force. Tanzania is also large with the possibility of producing 40,000 tons per year. Zambia is self-sufficient in maize, with fields producing 13 tons per hectare compared to four tons per hectare in South Africa. Zimbabwe could be an excellent location once stability returns. The biggest obstacle to the industry in Africa is that there are no markets, according to Tait.

¶4. D1 Oils Chief Executive Officer Demetri Pappadopoulos described his company's entry into the African industry. D1 Oils, a successful UK-based biofuel producer, moved into Africa in 2002, establishing projects in Madagascar, Swaziland, Zambia and South Africa. The company recently signed a 50,000 hectare project agreement with the Swazi government. The Swazi project involves an MOU with the government and World Vision to establish a model farm. Approximately 200 people will be employed on the farm itself, with many more to be employed in spin-off industries. The company has another 174,000 hectare project expected to employ 700 people with the government of Zambia. D1 Oils expects to have a biodiesel plant in South Africa by 2007.

SOUTH AFRICA IS CAUTIOUS ABOUT BIOFUELS

¶5. Frost and Sullivan Research Analyst Ulrich Taylor summarized the South Africa's advantages as a biofuel center. It has a favorable regulatory environment and fiscal support. The geographic location and climate permits excellent harvests. Fuel stock is readily available. There is growing diesel consumption within the country.

¶6. Engen Petroleum Refinery Strategic Planner Ian Baxter listed

South Africa's disadvantages. First, the government, not the oil companies, sets the prices, and they are too low. The tax in Europe is higher than the total pump price in South Africa. Second, the current tax rates are extremely low. The South African tax is only one rand per liter. Baxter concluded that even if the government adopted tax incentives similar to those found in Germany, the market would still not be viable. Third, Baxter noted that South Africa is a net importer of vegetable oils. The price of those oils is more than the cost of diesel in South Africa. Fourth, South Africa, a coal-based economy, has never had to develop a successful petrochemical industry. The existing petroleum industry in South Africa cannot use the biofuel residual byproducts as is done in the US or Europe.

¶7. SASOL Managing Director Brian Tait noted that large scale production might be feasible with proper economies of scale in South Africa. South Africa has three inherent advantages. First the plants could be located inland. This would foster rural development and resolve rural fuel shortages. Second, a biofuel industry would help dispose of South African surplus grains. Third, the industry would provide a platform for expanding biofuel into other SADC countries. Tait noted that obstacles remain, including the availability of fuel stocks, i.e., vegetable oil. Tait concluded that until crude oil reaches a minimum of USD 89 per barrel, there will be no profit in the biofuel market. He noted that even at that price, SASOL would need high tax incentives to make the market work.

¶8. Tait touched briefly on other issues affecting the market, including the possibility that the rising cost of fuel stocks would distort the local economy and increase domestic food costs. Indigenous non-food stocks such as jatropha might be feasible, but they are currently too labor-intensive. Sugar cane is not a South African option, according to Tait, but it would work well in other

PRETORIA 00005043 002 OF 004

African countries. (Comment. Sugar is a protected domestic industry and prices are set by the government, not the market. End Comment.) South Africa's maize potential is enormous; there are approximately 4.5 million hectares available for maize production.

¶9. Barclay's Agribusiness Specialist Fazel Moosa explained that agribusiness in South Africa is a R15 billion (USD 2 billion) business. Fuel stock and feed stock lending issues are similar. Supply is determined by gross farm income. Farm income is affected by climate as there are various climatic zones in South Africa, ranging from semi-arid to sub-tropical. According to Moosa, Eskom will not pay the government-regulated sugar prices. Maize tonnage has increased to the point where too many farmers are engaging in maize farming.

¶10. Moosa said that biodiesel has a small footprint in South Africa. Sunflower and soybean oil are the most important fuel stocks. South Africa could expand into canola if there was a price incentive. Moosa says the banks are concerned about potential surpluses and byproducts. She provided a Barclay's price analysis showing that even when crude oil is at USD 60 per barrel, the biodiesel industry would operate at a loss, unless the government provides support. According to Moosa, the University of Pretoria, in conjunction with the University of Missouri, modeled the biofuel industry in South Africa. The results showed that a large-scale industry would need 45 percent import tariffs and rebates on fuel to become profitable. It might be possible to create a viable industry using a "massification" scheme linking small-scale farmers to ensure a steady supply chain.

¶11. The South African Cabinet recently approved a plan to establish a biofuel industry. This plan, which will be financed by the government and private investors, consists of a task force that will meet and draw up a more detailed proposal to be submitted to the Cabinet in May 2007. The task force will talk with industry prior to submitting any final recommendations. South African NGOs Sustainable Energy and Climate Change Project (SECCP) and Citizens United for Renewable Energy (CURES) both expressed disappointment that the plan as drafted made no provisions for small-scale

producers. The South African Industrial Development Corporation (IDC) previously said that it would consider spending approximately USD 800 million to develop ethanol plants. Ethanol Africa of South Africa announced that it will spend R7 Million (USD 1 million) on building maize-to-ethanol plants.

GHANA: PUSHING AHEAD WITH BIOFUELS

¶12. Ghanaian Energy Commission Principal Program Officer Christine Asser described the development of the biofuel industry in Ghana. Rising fuel prices, not environmental concerns, led to the increased use of biofuel. Petroleum products currently marketed in Ghana include premium gasoline, kerosene, gas oil, residual fuel oil, LPG, and premix. Seventy percent of all products are produced by the Tema Oil Refinery (TOR) which is completely owned by the Ghanaian government. The remaining thirty percent comes from imports. TOR's production capacity is approximately 45,000 barrels per day. Consumption of petroleum products was 1.787 million tons in 2005. Overall consumption of petroleum products increased by about 17.4 percent between 2000 and 2005. Quality control is governed by the Standards Board which must certify all samples before the product can go to the Energy Commission for approval.

¶13. Asser noted that biofuels include both ethanol and biodiesel. The government has discussed various fuel stocks but is concentrating on developing ethanol from cassava, jatropha, oil palm and soybeans. One biofuel activist has about 500 hectares of jatropha in cultivation. The government prefers ethanol because its characteristics allow it to be used in cars currently in use in Ghana.

¶14. Asser commented that the lessons learned in Ghana could be useful for other African countries. One major mistake was for the government to wait for the private sector to get organized, and not stimulate the industry. When the government finally got involved, it conducted product demonstrations to prove the reliability of the fuel. Asser noted that the original timetable called for legislation to be in place by the end of December, but this has not been feasible. The framework is ready but policy decisions need to be made. She anticipates that the government will decide to waive taxes completely.

NIGERIA: ANOTHER GIANT WAKING UP TO BIOFUELS

PRETORIA 00005043 003 OF 004

¶15. Nigerian Energy Commission Chief Science Officer Abdussalam Yusuf provided an overview of the biofuel industry in Nigeria. Nigeria has a population of approximately 130 million persons, and a land area of 923,768 square kilometers, of which about 56 percent is arable. Vegetation ranges from the savanna in the extreme north, to swamp forest in the coastal south. Most parts of Nigeria are suitable for the biofuel crops of cassava, sugarcane, and jatropha. Nigeria is currently the leading producer of cassava in the world, producing about 30 million tons annually. The average yield is 15 tons per hectare which can be doubled with improved varieties. Cassava is seen by most Nigerians as a food crop, not an industrial crop. Sugar cane stocks represent one of the most photosynthetically efficient crops in the world. Nigerian sugarcane production has declined due to poor performance of local sugar companies. Potential sugar cane fields exist along the entire length of the Niger and Benue rivers.

¶16. The Nigerian government has decided to deliberately intervene to produce biofuels. The government has begun developing policy and regulatory frameworks, selecting land for the biofuel crops, developing business plans for piloting biofuel plants, and engaging the financial community. The government intends to jump-start the industry by initially importing fuel from Brazil. The objective of the Nigerian ethanol program is to produce fuel grade ethanol that will be blended with petrol in proportions not exceeding 10 percent by volume. Reducing domestic use of petrol and improving auto exhaust emissions are also key goals. Two target crops have been

identified for the fuel ethanol initiative - cassava and sugarcane.

¶17. According to Yusuf, Nigeria can provide sufficient markets to meet industry needs. Current petroleum consumption is 9.5 billion liters per year. The government projects demand will rise to 28 billion liters in 2025. The government hopes that bioethanol can replace a minimum of twenty percent of petroleum demand within five years. To meet these goals, Nigeria has established a time table calling for the implementation of an ethanol import program and the creation of a domestic seeding program within five years. The government also hopes to boost local production of cassava and sugar cane, to build two to four distillery plants by end of 2007, and to encourage public awareness and acceptance.

¶18. Nigeria has already established three sugarcane projects with total ethanol capacity of 225 million liters per year and a total cultivation area of 60,000 hectares. It is now seeking a partner for a large biofuel project. MOUs have been signed with Petrobras of Brazil and COIMEX of Mexico for both technology and supply exchanges. A National Energy Policy that strongly supports biofuels is in place. A draft Renewable Energy Master Plan contains targets for biofuel. Specific biofuel policy and incentives are being considered. These include tax and financial incentives for agricultural and related industries, and land ownership incentives for cassava and sugar producers.

¶19. Yusuf admits that challenges remain. Farming practices must be improved to enhance both quality and yield. The power and road infrastructures needed to boost production need work. Distribution and retail facilities have not been arranged. Quality control issues have not been implemented.

MALAWI: ACHIEVING AS MUCH AS IT CAN ALONE

¶20. Daniel Liwimbi, CEO of a Malawian ethanol company, related the history of biofuel in Malawi. The country began producing biofuel in 1982 with two companies. They used molasses and sugar from local sugar mills. Malawi opened its second ethanol plant approximately two or three years ago. Malawi is currently producing all the biofuel it can use and is considering exporting it to Tanzania, Kenya, Uganda, Mozambique, Zambia, and Botswana.

¶21. According to Liwimbi, regionalism is key for Malawi. To increase demand for biofuels, Malawi is attempting to introduce new flexible fuel cars. Several flex cars have been ordered and are on their way across the Atlantic. Liwimbi rightly notes that Malawi is too small to drive the region on any economic issue. He commented that the countries "need to get South Africa involved." Seventy-five percent of all cars driven in Malawi are manufactured in South Africa. Thus, if South Africa would make biofuels a priority, this would help the Malawi biofuels industry as well

¶22. COMMENT. Conflicting information from a variety sources left the audience unclear as to the viability of the biofuel industry in Africa. Some countries have proven they can create and maintain small scale industries, while others, notably South Africa, remain reluctant to commit to the industry without further study and analysis. END COMMENT.

PRETORIA 00005043 004 OF 004

BOST